

## Drifter Bibliography

### Research Papers

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Abbott, M.R., K.H. Brink, et al. (1990). "Observations of phytoplankton and nutrients from a Lagrangian drifter off Northern California." Journal of Geophysical Research-Oceans **95**(C6): 9393-9409.

Abbott, M.R., and R.M. Letelier (1998). "Decorrelation scales of chlorophyll as observed from bio-optical drifters in the California Current." Deep Sea Research Part II **45**: 1639-1667.

Abbott, M.R., K.H. Brink, et al. (1995). "Scales of variability of bio-optical properties as observed from near-surface drifters". Journal of Geophysical Research-Oceans **100**(C7): 13345-13367.

Afanasyev, Y.D., A.G. Kostianoy, A.G. Zatsepin, P.M. Poulaing (2002). "Analysis of velocity field in the eastern Black Sea from satellite data during the Black Sea '99 experiment." Journal of Geophysical Research-Oceans **107**(C8): 3098-3108.

Assireu, A.T., M.R. Stevenson, J.L. Stech (2002). "Surface circulation and kinetic energy in the SW Atlantic obtained by drifters." Continental Shelf Research **23**: 145-157.

Austin, J.A., J.A. Barth (2002). "Drifter behavior on the Oregon-Washington shelf during downwelling-favorable winds." Journal of Physical Oceanography **32**(11): 3132-3144.

Bacon, S., G. Reverdin, I.G. Rigor, H.M. Snaith (2002). "A freshwater jet on the east Greenland shelf." Journal of Geophysical Research-Oceans **107**(C7): 3068-3085.

Ballantyne, V.A., M.G.G. Foreman, et al. (1996). "Three-dimensional model simulations for the north coast of British Columbia." Continental Shelf Research **16**(13): 1655-1682.

Barth, J.A., S.D. Pierce, and R.L. Smith (2000). "A separating coastal upwelling jet at cape Blanco, Oregon, and its connection to the California Current system." Deep Sea Research Part II **47**(5-6): 783-810.

Barth, J.A. (2003). "Anomalous southward advection during 2002 in the northern California Current: Evidence from Lagrangian surface drifters." Geophysical Research Letters **30**(14): 8024-8027.

Barth, J.A., Hebert, D., Dale, A.C., Ullman, D.S (2004). "Direct observations of along-isopycnal upwelling and diapycnal velocity at a shelfbreak front." Journal of Physical Oceanography **34**(3): 543-565.

Barth, J.A., Pierce, S.D., Cowles, T.J (2005). "Mesoscale structure and its seasonal evolution in the northern California Current System." Deep-Sea research II **52**(1-2): 5-28.

Barton, E.D., Aristegui, J., Tett, P., Navarro-Perez, E (2004). "Variability in the Canary Island area of filament-eddy exchange." Progress in Oceanography **62**(2-4): 71-94.

- Baturin, N.G., P.P. Niiler (1997). "Effects of instability waves in the mixed layer of the equatorial Pacific." Journal of Geophysical Research-Oceans **102**(C13): 27771-27793.
- Bauer, S., M.S. Swenson, et al. (1998). "Eddy mean flow decomposition and eddy-diffusivity estimates in the tropical Pacific Ocean 1. Methodology." Journal of Geophysical Research-Oceans **103**(C13): 30855-30871.
- Beardsley, R.C., R. Limeburner, K. Kim, J. Candela (1992). "Lagrangian flow observations in the East China, Yellow and Japan Seas." La Mer **30**: 297-314.
- Beardsley R.C., Limeburner, R., Brechner Owens, W (2004). "Drifter measurements of surface currents near Marguerite Bay on the western Antarctic Peninsula shelf during austral summer and fall, 2001 and 2002." Deep-Sea Research II **51**(17-19): 1947-1964.
- Beckmann, A., Boning, C.W., Brugge, B., Stammer, D (1994). "On the generation and role of eddy variability in the central North Atlantic Ocean." Journal of Geophysical Research **99**(C10): 20381-91.
- Bengtsson T., Milliff R., Jones R., et al.(2005)."A state-space model for ocean drifter motions dominated by inertial oscillations". Journal of Geophysical Research-Oceans **110** (C10): Art. No. C10015 Oct. 4
- Bi, Kenong (1995). "Variability of the surface layer circulation in the western equatorial Pacific." Ph.D. Dissertation, University of California at San Diego: 165.
- Bingham, F.M. (1998). "Evidence for the existence of a North Hawaiian Ridge Current." Journal of Physical Oceanography **28**(5): 991-998.
- Bitterman, D.S., D.V. Hansen (1989). "Direct measurements of current shear in the tropical Pacific Ocean and its effect on drift buoy performance." Journal of Atmospheric and Oceanic Technology **6**(2): 274-279.
- Bitterman, D.S., D.V. Hansen (1993). "Evaluation of sea-surface temperature-measurements from drifting buoys." Journal of Atmospheric and Oceanic Technology **10**(1): 88-96.
- Bograd, S.J., A.B. Rabinovich, et al. (1999). "On sampling strategies and interpolation schemes for satellite-tracked drifters." Journal of Atmospheric and Oceanic Technology **16**(7): 893-904.
- Bograd, S.J., R.E. Thomson, et al. (1999). "Near-surface circulation of the northeast Pacific Ocean derived from WOCE-SVP satellite-tracked drifters." Deep-Sea Research Part II **46**(11-12): 2371-2403.
- Bonjean, F., Lagerloef, G.S.E (2002). "Diagnostic model and analysis of the surface currents in the tropical Pacific Ocean." Journal of Physical Oceanography **32**(10): 2938-54.
- Booth, D.A., D.T. Meldrum (1987). "Drifting buoys in the Northeast Atlantic." Journal of Council for the International Exploration of the Sea. **43**: 261-267.

- Bowen, M.M., W.J. Emery, J.L. Wilkin, P.C. Tildesley, I.J. Barton, R. Knewton (2002). "Extracting multiyear surface currents from sequential thermal imagery using the maximum cross-correlation technique." Journal of Atmospheric & Oceanic Technology **19**(10): 1665-1676.
- Brambilla E., Talley L.D.: (2006). "Surface drifter exchange between the North Atlantic subtropical and subpolar gyres." Journal of Geophysical Research-Oceans **111** (C7): Art. No. C07026
- Brink, K.H., R. Limeburner, R.C. Beardsley (2003). "Properties of flow and pressure over Georges Bank as observed with near-surface drifters." Journal of Geophysical Research-Oceans **108**(C7): 8001-80018.
- Brink, K.H., R.C. Beardsley, et al. (1991). "Statistical properties of near-surface flow in the California coastal transition zone." Journal of Geophysical Research-Oceans **96**(C8): 14693-14706.
- Brink, K.H., R.C. Beardsley, et al. (2000). "A view of the 1993-1994 California current based on surface drifters, floats, and remotely sensed data." Journal of Geophysical Research-Oceans **105**(C4): 8575-8604.
- Brink, K.H., T.J. Cowles (1991). "The coastal transition zone program." Journal of Geophysical Research-Oceans **96**(C8): 14637-14647.
- Brugge, B. (1995). "Near-surface mean circulation and kinetic energy in the central North Atlantic from drifter data." Journal of Geophysical Research **100**: 20543-20554.
- Brugge, B., J. Dengg (1991). "Differences in drift behavior between drogued and undrogued satellite-tracked drifting buoys." Journal of Geophysical Research **96**(C4): 7249-7263.
- Burrows, M., S.A. Thorpe (1999). "Drifter observations of the Hebrides slope current and nearby circulation patterns." Annales Geophysicae-Atmospheres Hydrospheres and Space Sciences **17**(2): 280-302.
- Carton, J.A., G. Chepurin, et al. (2000). "A simple ocean data assimilation analysis of the global upper ocean 1950-95. Part II: Results." Journal of Physical Oceanography **30**(2): 311-326.
- Centurioni, L.R., P.P. Niiler (2003). "On the surface currents of the Caribbean Sea." Geophysical Research Letters **30**(6): 1279-1282.
- Centurioni, L.R., Niiler, P.P., Lee, D.K (2004). "Observations of inflow of Philippine Sea surface water into the South China Sea through the Luzon Strait." Journal of Physical Oceanography **34**(1): 113-121.
- Chaigneau, A., Pizarro, O: (2005). "Eddy characteristics in the eastern South Pacific." Journal of Geophysical Research C110(C6): 1-13.
- Chaigneau, A., Pizarro, O: (2005). "Mean surface circulation and mesoscale turbulent flow characteristics in the eastern South Pacific from satellite tracked drifter." Journal of Geophysical Research-Oceans **110**(C5) C05014

- Chaigneau, A., Pizarro, O: (2005). "Surface circulation and fronts of the South Pacific Ocean, east of 120 degrees W. Geophysical Research Letters **32**(8) L08605
- Chaigneau A., del Rio R.A., Colas F.: (2006)."Lagrangian study of the Panama Bight and surrounding regions." Journal of Geophysical Research-Oceans **111** (C9): Art. No. C09013.
- Chen, C.S., Beardsley, R.C., Franks, P.J.S., Van Keuren, J (2003). "Influence of diurnal heating on stratification and residual circulation of Georges Bank." Journal of Geophysical Research-Oceans **108**(C11): 8008.
- Chen, C.S., Xu, Q.C., Beardsley, R.C., Franks, P.J.S (2003). "Model study of the cross-frontal water exchange on Georges Bank: A three-dimensional Lagrangian experiment." Journal of Geophysical Research-Oceans **108**(C5): 3142
- Chepurin, G.A., Carton, J.A (2002). "Secular trend in the near-surface currents of the equatorial Pacific Ocean." Geophysical Research Letters **29**(17): 9-13.
- Chereskin, T., P.P. Niiler, P. Poulaing (1989). "A numerical study of the effects of upper ocean shear on flexible drogued drifters." Journal of Atmospheric and Oceanic Technology **6**(2): 243-253.
- Chereskin, T., P. Niiler (1994). "Circulation in the Ensenada front-September 1988." Deep Sea Research **41**(C8): 1251-1287.
- Chereskin, T.K., M.Y. Morris, et al. (2000). "Spatial and temporal characteristics of the mesoscale circulation of the California current from eddy-resolving moored and shipboard measurements." Journal of Geophysical Research-Oceans **105**(C1): 1245-1269.
- Chew, F., M.H. Bushnell, 1990. The Half-Inertial Flow in the Eastern Equatorial Pacific: A Case Study. J. Phys. Oceanogr., **20**, 1124-1133.
- Chiswell S.M., Rickard G.J.: (2006). "Comparison of model and observational ocean circulation climatologies for the New Zealand region." Journal of Geophysical Research-Oceans **111** (C10): Art. No. C10011.
- Chu, P.C., Ivanov, L.M., Kantha, L.H., Margolina, T.M., Melnichenko, O.V., Poberezhny, Y.A (2003). "Lagrangian predictability of high-resolution regional models: the special case of the Gulf of Mexico." Nonlinear Processes in Geophysics **11**(1): 47-66.
- Crawford, W.R., J.Y. Cherniawsky, et al. (1999). "Surface currents in British Columbia coastal waters: Comparison of observations and model predictions." Atmosphere-Ocean **37**(3): 255-280.
- Cresswell, G. (1996). "The Leeuwin current near Rottnest Island, Western Australia." Marine and Freshwater Research **47**(3): 483-487.
- Cuny, J., P.B. Rhines, P. Niiler, S. Bacon (2002). "Labrador sea boundary currents and the fate of the Irminger Sea." American Meteorological Society: 627-647.

- D'Asaro, E.A., C.C. Eriksen, M.D. Levine, P.P. Niiler, C.A. Paulson, P. Van Meurs (1995). "Upper ocean inertial Currents forced by a strong storm: data and comparisons with linear theory." *Journal of Physical Oceanography* **25**(11) Part II: 2819-2830.
- Degrandpre, M.D., Wanninkhof, R., Mcgillis, W.R., Strutton, P.G (2004). "A Lagrangian study of surface pCO<sub>2</sub> dynamics in the eastern equatorial Pacific Ocean." *Journal of Geophysical Research C (Oceans)* **109**(C8) C08S07
- Delcroix, T., J. Picaut (1998). "Zonal displacement of the western equatorial Pacific 'fresh pool'." *Journal of Geophysical Research* **103**(C1): 1087-1098.
- Dever, E.P., M.C. Hendershott, et al. (1998). "Statistical aspects of surface drifter observations of circulation in the Santa Barbara Channel." *Journal of Geophysical Research-Oceans* **103**(C11): 24781-24797.
- Drinkwater, K.F. and J.W. Loder (2001). "Near-surface horizontal convergence and dispersion near the tidal-mixing front on Northeastern Georges Bank." *Deep-Sea Research Part Ii-Topical Studies in Oceanography* **48**(1-3): 311-339.
- Du Penhoat, Y., G. Reverdin (2002). "A Lagrangian investigation of vertical turbulent heat fluxes in the upper ocean during Tropical Ocean-Global Atmosphere/Coupled Ocean-Atmosphere Response Experiment (TOGA-COARE)." *Journal of Geophysical Research-Oceans* **107**(C5): 3039-3032.
- Dugdale, R.C., Wilkerson, F.P (1989) "New production in the upwelling center at Point Conception, California: temporal and spatial patterns." *Deep-Sea Research Part I-Oceanographic Research Papers* **36**(7A): 985-1007.
- Eremeev, V.N., Ivanov, L.M., Kirwan, A.D. Jr., Melnichenko, O.V., Kochergin, S.V., Stanichnaya, R.R (1992) "Reconstruction of oceanic flow characteristics from quasi-Lagrangian data. 2. Characteristics of the large-scale circulation in the Black Sea." *Journal of Geophysical Research* **97**(C6): 9743-53.
- Figueroa, H.A., Olson, D.B (1994) "Eddy resolution versus eddy diffusion in a double gyre GCM. I. The Lagrangian and Eulerian description." *Journal of Physical Oceanography* **24**(2): 371-86.
- Flament, P., S. Kennan, R. Knox, P. Niiler, R. Bernstein (1996). "The three-dimensional structure of an upper ocean vortex in the tropical Pacific Ocean." *Nature* **383**: 610-613.
- Flament, P., R. Lumpkin, J. Tournadre, R. Kloosterziel, L. Armi (2001). "Vortex pairing in an unstable anticyclonic shear flow: discrete subharmonics of one pendulum day." *Journal of Fluid Mechanics* **440**:401-410.
- Flatau, M., P.J. Flatau, P. Phoebus, P.P. Niiler (1997). "The feedback between equatorial convection and local radiative and evaporative processes: the implications for intraseasonal oscillations." *Journal of Atmospheric Sciences* **54**: 2373-2386.
- Flatau MK. Talley L. Niiler PP. (2003). "The North Atlantic Oscillation, surface current velocities, and SST changes in the subpolar North Atlantic." *Journal of Climate* **16**(14): 2355-2369.

- Foltz, Gregory R., Semyon A. Grodsky, James A. Carton, Michael J. McPhaden.(2003). "Seasonal mixed layer heat budget of the tropical Atlantic Ocean". Journal of Geophysical Research **108** (C5),3146, doi:10.1029/2002JC001584
- Font, J., Isern-Fontanet, J., Salas J.D.J (2004). "Tracking a big anticyclonic eddy in the western Mediterranean Sea." Scientia Marina **68**(3): 331-342.
- Frankignoul, C., F. Bonjean, G. Reverdin (1996). "Interannual variability of surface currents in the tropical Pacific during 1987-1993." Journal of Geophysical Research **101**(C2): 3629-3647.
- Fratantoni, D.M. (2001). "North Atlantic surface circulation during the 1990's observed with satellite-tracked drifters." Journal of Geophysical Research-Oceans **106**(C10): 22067-22093.
- Fratantoni, D.M., D.A. Glickson (2002). "North Brazil current ring generation and evolution observed with SeaWiFS." Journal of Physical Oceanography **32**(3): 1058-1074.
- Fratantoni D.M., Richardson P.L (2006). "The evolution and demise of North Brazil Current rings." Journal of Physical Oceanography **36** (7): 1241-1264.
- Freeland, H (1994) "Ocean circulation at and near Cobb Seamount." Deep-Sea Research Part I-Oceanographic Research Papers **41**(11-12): 1715-32.
- Fu L.L (2006) "Pathways of eddies in the South Atlantic Ocean revealed from satellite altimeter observations." Geophysical Research Letters **33** (14): Art. No. L14610.
- Garraffo, Z.D., A.J. Mariano, et al. (2001). "Lagrangian data in a high-resolution numerical simulation of the North Atlantic I. Comparison with in situ drifter data." Journal of Marine Systems **29**(1-4): 157-176.
- Geyer, W.R. (1989). "Field calibration of mixed layer drifters." Journal of Atmospheric and Oceanic Technology **6**: 333-347.
- Geyer, W.R., Signell, R.P., Fong, D.A., Wang, J., Anderson, D.M., Keafer, B.A (2004). "The freshwater transport and dynamics of the western Maine coastal current." Continental Shelf Research **24**(12): 1339-1357.
- Gille, S.T., Romero, L (2003). "Statistical behavior of ALACE floats at the surface of the Southern Ocean." Journal of Atmospheric & Oceanic Technology **20**(11): 1633-1640.
- Ginzburg, A.I., A.G. Kostyanoi, et al. (2000). "Sea of Japan surface circulation (from satellite and drifter data)." Earth Observation and Remote Sensing **16**(1): 89-112.
- Grodsky, S.A., J.A. Carton (2001). "Intense surface currents in the tropical Pacific during 1996-1998." Journal of Geophysical Research-Oceans **106**(C8): 16673-16684.
- Grodsky, S.A., J.A. Carton, et al. (2001). "Anomalous surface currents in the tropical Indian Ocean." Geophysical Research Letters **28**(22): 4207-4210.

- Grodsky, S.A., J.A. Carton (2002). "Surface drifter pathways originating in the equatorial Atlantic cold tongue." Geophysical Research Letters **29**(23): 2147-2150.
- Grodsky, S.A., J.A. Carton, S. Nigam. (2003). "Near surface westerly wind jet in the Atlantic ITCZ". Geophysical Research Letters **30**(19), 2009, doi:10.1029 /2003GL017867,2003
- Grundlingh, M.L. (1999). "Surface currents derived from satellite-tracked buoys off Namibia." Deep-Sea Research Part II-Topical Studies in Oceanography **46**(1-2): 453-473.
- Gutierrez, O.Q., Marinone, S.G., Pares-Sierra, A. (2004). "Lagrangian surface circulation in the Gulf of California from a 3D numerical model." Deep-Sea Research II **51**(6-9): 659-672.
- Hamann, I.M., Boehlert, G.W., Wilson, C.D. (2004) "Effects of steep topography on the flow and stratification near Palmyra Atoll." Ocean Dynamics **54**(3-4): 460-473.
- Hamilton, P., G.S. Fargion, D.C. Biggs (1999). "Loop current eddy paths in the western Gulf of Mexico." Journal of Physical Oceanography **30**(1): 51-66.
- Hamilton, P., T.J. Berger, W. Johnson (2002). "On the structure and motions of cyclones in the northern Gulf of Mexico." Journal of Geophysical Research-Oceans **107**(C12): 3208-3225.
- Hamilton, P., Fan, S., Oey, L-Y (2004). "Assimilation of drifter and satellite data in a model of the Northeastern Gulf of Mexico." Continental Shelf Research **24**(9): 1001-1013.
- Hansen, D.V., A. Herman (1989). "Temporal sampling requirements for surface drifting buoys in the tropical Pacific". Journal of Atmospheric and Oceanic Technology **6**(4).
- Hansen, D.V. (1990). "Physical aspects of the El Nino event of 1982-1983". Global ecological Consequences Of The 1982-1983 El Nino-Southern Oscillation. Edited by P. Glenn. Elsevier, Amsterdam: 1-20 (563pp).
- Hansen, D.V. (1990). "Surface current and temperature patterns in the Western Tropical Pacific Ocean". Air Sea Interaction in The Tropical Western Pacific. Edited by J. Chao and J. Young. China Ocean Press, Beijing: 121-128 (539pp).
- Hansen, D.V., G.A. Maul (1991). "Anticyclonic current rings in the eastern tropical Pacific Ocean". Journal of Geophysical Research **96**: 6965-6979.
- Hansen, D.V., P.M. Poulain (1996). "Quality control and interpolations of WOCE-TOGA drifter data." Journal of Atmospheric and Oceanic Technology **13**(4): 900-909.
- Haury, L., C. Fey, et al. (2000). "Zooplankton distribution around four eastern North Pacific seamounts." Progress in Oceanography **45**(1): 69-105.
- Haynes, R., E.D. Barton (1991). "Lagrangian observations in the Iberian Coastal Transition Zone". Journal of Geophysical Research **96**(C8): 14,731-14,741.
- Hernandez, F., P.Y. LeTraon, et al. (1995). "Mapping mesoscale variability of the azores current using TOPEX/POSEIDON and ERS 1 altimetry, together with hydrographic and

- Lagrangian measurements." Journal of Geophysical Research-Oceans **100**(C12): 24995-25006.
- Hickey, B.M. (1992). "Circulation over the Santa-Monica San-Pedro Basin and Shelf." Progress in Oceanography **30**(1-4): 37-115.
- Ho, C.R., Q.N. Zheng, et al. (2000). "Seasonal variability of sea surface height in the South China Sea observed with TOPEX/Poseidon altimeter data." Journal of Geophysical Research-Oceans **105**(C6): 13981-13990.
- Hofmann, E.E., Hedstrom, K.S., Moisan, J.R., Haidvogel, D.B., Mackas, D.L (1991) "Use of simulated drifter tracks to investigate general transport patterns and residence times in the coastal transition zone." Journal of Geophysical Research **96**(C8): 15041-52.
- Hood, R.R., M.R. Abbott, A. Huyer (1991). "Phytoplankton and photosynthetic light response in the Coastal Transition Zone off northern California in June 1987". Journal of Geophysical Research **96**: 14769-14780.
- Hosoda, K., Hanawa, K (2004). "Anticyclonic eddy revealing low sea surface temperature in the sea south of Japan: case study of the eddy observed in 1999-2000." Journal of Oceanography **60**(4): 663-671.
- Hsueh, Y., H-J Lie, H. Ichikawa (1996). "On the branching of the Kuroshio west of Kyushu". Journal of Geophysical Research **101**(C2): 3851-3857.
- Huntley, M.E., P.P. Niiler (1995). "Physical control of population dynamics in the Southern Ocean". ICES Journal marine Science **52**: 457-468.
- Huntley, M.E., P. Niiler, O. Holm-Hansen, D.M. Karl (1987). "Research on Antarctic ecosystem rates: an interdisciplinary field study". Antarctic Journal U.S. **22**: 135-166.
- Huntley, M.E., P.P. Niiler, O. Holm-Hansen, M. Vernet, E. Brinton, A.F. Amos, D.M. Karl (1990). "RACER: An interdisciplinary study of spring bloom dynamics". Antarctic Journal U.S. **25**: 126-131.
- Huyer, A., P. M. Kosro, et al. (1991). "Currents and water masses of the Coastal Transition Zone off Northern California, June to August 1988." Journal of Geophysical Research-Oceans **96**(C8): 14809-14831.
- Hwang, C., Wu, C.R., Kao, R (2004). "TOPEX/Poseidon observations of mesoscale eddies over the Subtropical Countercurrent: kinematic characteristics of an anticyclonic eddy and a cyclonic eddy. Journal pf Geophysical Research C (Oceans) **109**(C8) C08013.
- Ichikawa, H., R.C. Beardsley (2002). "The current system in the Yellow and East China Seas." Journal of Oceanography **58**: 77-92.
- Imawaki S. Uchida H. Ichikawa K. Ambe D. (2003). "Estimating the high-resolution mean sea-surface velocity field by combined use of altimeter and drifter data for GEOID model improvement." Space Science Reviews **108**(1-2): 195-204.

- Ishii, H (2004). "A relation between geostrophic current speed and drifting speed of surface drifter." Report of Hydrographic Researches **32**:119-127.
- Ishii, H., Michida, Y (2004). "Tracking of the first branch of the Tsushima warm current with surface drifter." Report of Hydrographic Researches **32**:37-47.
- Jakobsen, P.K., M.H. Rønne, D. Quadfasel, T. Schmitt, C.W. Hughes (2003). "Near-surface circulation in the northern North Atlantic as inferred from Lagrangian drifters: Variability from the mesoscale to interannual." Journal of Geophysical Research-Oceans **108**(C8): 3251-3264.
- Jayne S.R (2006) "Circulation of the North Atlantic Ocean from altimetry and the Gravity Recovery and Climate Experiment geoid." Journal of Geophysical Research-Oceans **111** (C3):Art.No.C03005
- Johnson, D., Stocker, R., Head, R., Imberger, J., Pattiariachi, C (2003). "A compact, low-cost GPS drifter for use in the oceanic nearshore zone, lakes, and estuaries." Journal of Atmospheric & Oceanic Technology **20**(12): 1880-1884.
- Johnson, G.C. (2001). "The Pacific Ocean subtropical cell surface limb." Geophysical Research Letters **28**(9): 1771-1774.
- Jones, B.H., C.N.K. Mooers, et al. (1991). "Chemical and biological structure and transport of a cool filament associated with a jet-eddy system off Northern California in July 1986 (Optoma21)." Journal of Geophysical Research-Oceans **96**(C12): 22207-22225.
- Kelley, K.A., R.C. Beardsley, R. Limeburner, K.H. Brink, J. Paduan, T.K. Chereskin (1998). "Variability of the near-surface eddy kinetic energy in the California current based on altimetric, drifter, and moored current data". Journal of Geophysical Research **103**: 13067-13083.
- Kelly, K.A., P.T. Strub (1992). "Comparison of velocity estimates from advanced very high-resolution radiometer in the Coastal Transition Zone." Journal of Geophysical Research-Oceans **97**(C6): 9653-9668.
- Kelly, K.A., Dickinson, S., Johnson, G.C (2005). "Comparison of scatterometer and TAO winds reveal time-varying surface currents for the tropical Pacific Ocean." Journal of Atmospheric and Oceanic technology **22**(6): 735-745.
- Kennan, S.C. (1997). "Observations of a tropical instability vortex". A Ph.D. Dissertation submitted to the Graduate Division of the University of Hawaii.
- Kessler W.S.: (2006)." The circulation of the eastern tropical Pacific: A review." Progress in Oceanography **69**(2-4):181-217.
- Kim, H.Y., T.ugimoto (2002). "Transport of larval jack mackerel (*Trachurus japonicus*) estimated from trajectories of satellite-tracked drifters and advective velocity fields obtained from sequential satellite thermal images in the eastern East China Sea." Fisheries Oceanography **11**(6): 329-336.

- Knutsen, ), Svendsen, H., Otserjus, S., Rossby, T., Hansen, B (2005). "Direct measurements of the mean flow and eddy Kinetic energy structure of the upper ocean circulation in the NE Atlantic." Geophysical Research Letters **32**(14): 1-5.
- Kosro, P.M., A. Huyer, et al. (1991). "The structure of the Transition Zone between coastal waters and the open ocean off Northern California, Winter and Spring 1987." Journal of Geophysical Research-Oceans **96**(C8): 14707-14730.
- Krauss, W., J. Dengg, H.H. Hinrichsen (1990). "The response of drifting buoys to currents and wind – reply. Journal of Geophysical research **95**(C1): 801-803.
- Lacorata, G., Aurell, E., Vulpiani, A (2001) "Drifter dispersion in the Adriatic Sea: Lagrangian data and chaotic model." Annales Geophysicae **19**(1): 121-9.
- Lafuente, J.G., Delgado, J (2004). "The meandering path of a drifter around the Western Alboran gyre." Journal of Physical Oceanography **34**(3): 685-692.
- Lagerloef, G., G. Mitchum, R. Lukas, P. Niiler (1999). "Tropical Pacific near surface currents estimated from altimeter, wind and drifter data". Journal of Geophysical Research **104**(C10): 23,313-23,326.
- Landry, M.R., S.L. Brown, K.E. Selph, M.R. Abbott (2001). "Initiation of the spring phytoplankton increase in the Antarctic Polar Front Zone at 170°W." Journal of Geophysical Research-Oceans **106**(C7): 13,903-13,915.
- Large, W.G., G. Danabasoglu, et al. (2001). "Equatorial circulation of a global ocean climate model with anisotropic horizontal viscosity." Journal of Physical Oceanography **31**(2): 518-536.
- Largier, J., A.J. Boyd (2001). "Drifter observations of surface water transport in the Benguela Current during winter 1999." South African Journal of Science **97**(5-6): 223-229.
- Lazier, J.R.N. (1994). "Observations in the northwest corner of the North-Atlantic Current." Journal of Physical Oceanography **24**(7): 1449-1463.
- Lee, D-K., J-C. Lee, H-J. Lie (1997). "A circulation study of the East Sea using satellite-tracked drifters". Journal of the Korean Fisheries Society **30**(6).
- Lee, D-K., P.P. Niiler, S-R. Lee, K. Kim, H-J. Lie (2000). "Energetics of the surface circulation of the Japan/east Sea". Journal of Geophysical Research **105**(C8): 19,561-19,573.
- Lee, D-K., Niiler, P.P (2005) "The energetic surface circulation patterns of the Japan/East Sea." Deep-Sea Research II **52**(11-13): 1547-1563.
- Lemon, M.R. (1997). "Comparison of Los Alamos National laboratory (LANL) Parallel Ocean Program (POP) model fields with Pacific surface drifter measurements". Thesis completed at naval Postgraduate School, Monterey, California.
- Letraon, P.Y., F. Hernandez (1992). "Mapping the oceanic mesoscale circulation - validation of satellite altimetry using surface drifters." Journal of Atmospheric and Oceani Technology **9**(5): 687-698.

- Levinson D.H. (2005) "State of the climate in 2004." Bulletin Of the American Meteorological Society **86** (6): S1+ Jun.
- Lie, H.J., C.H. Cho (1994). "On the origin of the Tsushima warm current." Journal of Geophysical Research-Oceans **99**(C12): 25081-25091.
- Lie, H.J., C.H. Cho, et al. (2001). "Does the Yellow Sea Warm Current really exist as a persistent mean flow?" Journal of Geophysical Research-Oceans **106**(C10): 22199-22210.
- Lie, H.J., C.H. Cho, et al. (1998). "Separation of the Kuroshio water and its penetration onto the continental shelf west of Kyushu." Journal of Geophysical Research-Oceans **103**(C2): 2963-2976.
- Lie HJ. Lee S. Cho CH. (2002). "Computation methods of major tidal currents from satellite-tracked drifter positions, with application to the Yellow and East China Seas." Journal of Geophysical Research-Oceans **107**(C1): 3003-3024.
- Lie, H.J., C.H. Cho, J.H. Lee, S. Lee (2003). "Structure and eastward extension of the Changjiang River plume in the East China Sea." Journal of Geophysical Reseach-Oceans **108**(C3): 3077-3090.
- Limeburner, R., R.C. Beardsley (1996). "Near-surface recirculation over Georges Bank." Deep-Sea Research Part II-Topical Studies in Oceanography **43**(7-8): 1547-&.
- Limeburner, R., R.C. Beardsley, et al. (1995). "Lagrangian flow observations of the Amazon River discharge into the North-Atlantic." Journal of Geophysical Research-Oceans **100**(C2): 2401-2415.
- Loder, J.W., D. Brickman, et al. (1992). "Detailed structure of currents and hydrography on the northern side of Georges Bank." Journal of Geophysical Research-Oceans **97**(C9): 14331-14351.
- Lozier, M.S., Gawarkiewicz, G (2001) "Cross-frontal exchange in the Middle Atlantic Bight as evidenced by surface drifters." Journal of Physical Oceanography **31**(8)pt.2: 2498-510.
- Lukas, R., E. Firing, P. Hacker, P.L. Richardson (1991). "Observations of the Mindanao current during the Western Equatorial Pacific Ocean circulation study". Journal of Geophysical Research **96**(4): 7089-7194.
- Lumpkin, R., P. Flament (2001). "Lagrangian statistics in the central North Pacific." Journal of Marine Systems **29**(1-4): 141-155.
- Lumpkin, R., S. Garzoli (2005). "Near-surface circulation in the Tropical Atlantic Ocean." Deep-Sea Research I **52**(3), 495-518, 10.1016/j.dsr.2004.09.001.
- Lumpkin, R., and M. Pazos, 2006: "Measuring surface currents with Surface Velocity Program drifters: the instrument, its data, and some recent results." Chapter two of Lagrangian Analysis and Prediction of Coastal and Ocean Dynamics (LAPCOD). ed. A. Griffa, A.D. Kirwan, A.J. Mariano, T. Ozgokmen, and T. Rossby.

- Lumpkin, R., A-M Treguier and K. Speer (2002). "Lagrangian Eddy Scales in the Northern Atlantic Ocean". *J. Phys. Ocean.* **32**, 2425-2440.
- Lumpkin, R. (1998). "Eddies and Currents on the Hawaiian Islands". Ph D. dissertation, University of Hawaii at Manoa, 281 pp.
- Lumpkin, R (2003). "Decomposition of surface drifter observations in the Atlantic Ocean". *Geophysical Research Letters*, **30** (14), 1753, doi:10.1029/2003GL017519.
- Lutjeharms, J., Ansorge, I., Grundlingh, M., Ballegooyen, R.V., Weeks, S., Machu, E., Boebel, O (2004) Comment on "New global drifter data set available". *EOS: Transactions American Geophysical Union* **85**(19): 188.
- Lumpkin R., Garrallo Z. (2005) "Evaluating the decomposition of tropical Atlantic drifter observations." *Journal of Atmospheric and Oceanic Technology* **22** (9): 1403-1415.
- Mackas, D.L., W.R. Crawford, et al. (1989). "A performance comparison for 2 Lagrangian drifter designs." *Atmosphere-Ocean* **27**(2): 443-456.
- Mailly, T., E. Blayo, et al. (1997). "Assessment of the ocean circulation in the Azores region as predicted by a numerical model assimilating altimeter data from Topex/Poseidon and ERS-1 satellites." *Annales Geophysicae-Atmospheres Hydrospheres and Space Sciences* **15**(10): 1354-1368.
- Manning, J.P., R.G. Lough, et al. (2001). "Modelling the effect of a slope-water intrusion on advection of fish larvae in May 1995 on Georges Bank." *Ices Journal of Marine Science* **58**(5): 985-993.
- Manning, J.P. and J. H. Churchill, (2006). "Estimates of dispersion from clustered-drifter deployments on the southern flank of Georges Bank." *Deep Sea Res. II*. doi:10.1016/j.dsr2.2006.08.004.
- Marchesiello, P., McWilliams, J.C., Shchepetkin, A (2003). "Equilibrium structure and dynamics of the California Current System." *Journal of Physical Oceanography* **33**(4): 753-783.
- Martins, C.S., M. Hamann, A.F.G. Fiuza (2002). "Surface circulation in the eastern North Atlantic, from drifters and altimetry." *Journal of Geophysical Research-Oceans* **107**(C12): 3217-3240.
- Maximenko, N.A., P.P. Niiler, et al. (1993). "Drifter experiment in the Black-Sea." *Oceanology* **33**(3): 445-449.
- Maximenko, N., N. Mardashkina (1993). "Advection mixing by eddy field particle diffusion". *Oceanologiya* **33**(4).
- Maximenko, N., T. Yamagata. "Submesoscale anomalies in the North Pacific Subarctic Front". Submitted to *Journal of Geophysical Research* **100**(C9): 18459-18469.
- Maximenko, N. (2004). "Correspondence between Lagrangian and Eulerian velocity statistics at the ASUKA line." *Journal of Oceanography* **60**(4): 681-687. (2004)

- Maximenko, N.A., Niiler P.P (2005) "Hybrid decade-mean global sea level with mesoscale resolution." In N. Saxena (Ed.) Recent Advances in Marine Science and Technology, 2004, pp. 55-59. Honolulu: PACON International.
- McClean, J.L., A.J. Semtner, et al. (1997). "Comparisons of mesoscale variability in the Semtner-Chervin 1/4 degrees model, the Los Alamos Parallel Ocean Program 1/6 degrees model, and TOPEX/POSEIDON data." Journal of Geophysical Research-Oceans **102**(C11): 25203-25226.
- McClean, J.L., P.M. Poulain, J.W. Pelton, M.E. Maltrud (2002). "Eulerian and Lagrangian statistics from surface drifters and a high-resolution POP simulation in the North Atlantic." Journal of Physical Oceanography **32**(9): 2472-2490.
- McPhaden, M.J., D.V. Hansen, et al. (1991). "A comparison of ship drift, drifting buoy, and current-meter mooring velocities in the Pacific South Equatorial Current." Journal of Geophysical Research-Oceans **96**(C1): 775-781.
- McPhaden, M., F. Bahr, Y. Du Penhoat, E. Firing, S. Hayes, P.P. Niiler, P. Richardson, J. Toole (1992). "The response of the western equatorial Pacific Ocean to westerly wind bursts during November 1989 to January 1990". Journal of Geophysical Research **97**(C9): 14289-14303.
- McPhaden, M., A.J. Busalacchi, R. Cheney, J-R. Donguy, K.S. Gage, D. Halpern, M. Ji, P. Julian, G. Meyers, G.T. Mitchum, P.P. Niiler, J. Picaut, R.W. Reynolds, N. Smith, K. Takeuchi (1997). "The Tropical Ocean Global Atmosphere (TOGA) observing system: A decade of progress". Journal of Geophysical Research **103**(C7): 14169-14240.
- Memery, L., Reverdin, G., Paillet, J., Oschlies, A (2005). "Introduction to the POMME special section: thermocline ventilation and biogeochemical distribution in the northeast Atlantic Ocean and impact of mesoscale dynamics. Journal of Geophysical Research C (Oceans) **110**(C7): 1-17.
- Meredith M.P., J.L. Watkins, E.J. Murphy, N.J. Cunningham, A.G .Wood, R. Korb, M.J. Whitehouse, S.E. Thorpe, F. Vivier (2003). "An anticyclonic circulation above the Northwest Georgia Rise, Southern Ocean." Geophysical Research Letters **30**(20): 2061-2065.
- Michida, Y., H. Yoritaka (1996). "Surface currents in the area of the Indo-Pacific through flow and in the tropical Indian Ocean observed with surface drifters." Journal of Geophysical Research-Oceans **101**(C5): 12475-12482.
- Middleton, J.F. (1985). "Drifter spectra and diffusivities." Journal of Marine Research **43**(1): 37-55.
- Middleton, J.F., C. Garrett (1986). "A kinematic analysis of polarized eddy fields using drifter data." Journal of Geophysical Research-Oceans **91**(C4): 5094-5102.
- Miller, L.A., Robert, M., Crawford, W.R. (2005). "The large, westward-propagating Haida Eddies of the Pacific eastern boundary." Deep-Sea Research II **52**(7-8): 845-851.

- Miller, A.J., H.G. Arango, et al. (1995). "Quasi-geostrophic forecasting and physical processes of Iceland-Faroe frontal variability." Journal of Physical Oceanography **25**(6): 1273-1295.
- Miller, A.J., J.C. Williams, N. Schneider, J.S. Allen, J.A. Barth, R.C. Beardsley, T. Chereskin, C.A. Edwards, R. Haney, K.A. Kelley, J. Kindle, L. Ly, J. Moisen, M. Noble, P.P. Niiler, L.Y. Oey, F. Schwing, K. Shearman, M.S. Swenson (1999). "Observing and modeling the California current system: purposes, achievements and aspirations". EOS **80**: 533-539.
- Milliff, R.F., P.P. Niiler, J. Morzel, A.E. Sybrandy, D. Nychka, W.G. Large (2003). "Mesoscale correlation length scales from NSCAT and Minimet surface wind retrievals in the Labrador Sea." Journal of Atmospheric & Oceanic Technology **20**(4): 513-533.
- Molcard, A., Piterbarg, L.I., Griffa, A., Ozgokmen, T.M., Mariano, A.J (2003). "Assimilation of drifter observations for the reconstruction of the Eulerian circulation field." Journal of Geophysical Research-Oceans **108**(C3): 3056.
- Mooers, C.N.K., Bang, I., Sandovai, F.J (2005). "Comparison between observation and numerical simulations of Japan (East) Sea flow and mass fields in 1999 through 2001." Deep-Sea Research II **52**(11-13): 1639-1661.
- Morrow, R., Coleman, R., Church, J., Chelton, D (1994) "Surface eddy momentum flux and velocity variances in the Southern Ocean from Geosat altimetry." Journal of Physical Oceanography **24**(10): 2050-71.
- Morrow, R., P. DeMey (1995). "Adjoint assimilation of altimetric, surface drifter, and hydrographic data in a quasi-geostrophic model of the Azores Current." Journal of Geophysical Research-Oceans **100**(C12): 25007-25025.
- Motyzhev, S.V., Y.I. Bekhterev, N.I. Kiyashchenko, V.L. Kotyarov, et al. (1990). "Measurement of currents from the drift of sub-satellite buoys". Soviet Journal of Remote Sensing **7**(2): 216-222.
- Molinari, Robert L. (1983). "Observations of Near-Surface Currents and Temperature in the Central and Western Tropical Atlantic Ocean". Journal of Geophysical Research **88** (C7):4433-4438.
- Molinari, Robert L.(1990). "Surface Current Distributions in the Tropical Indian Ocean derived from compilations of surface buoy trajectories. Journal of Geophysical Research **94** (C5):7217-7238.
- Molinari, R.L., S. Bauer, D.Snowden, G.C. Johnson, B. Bourles, Y. Gouriou, H.Mercier. (2003) "A comparison of kinematic evidence for tropical cells in the Atlantic and Pacific oceans". In Interhemispheric Water Exchange in the Atlantic Ocean, Elsevier Science Oceanographic Series 68, G. Goni and P. Malanotte-Rizzoli (Eds), pp269-286.
- Naimie, C.E., R. Limeburner, et al. (2001). "On the geographic and seasonal patterns of the near-surface circulation on Georges Bank - from real and simulated drifters." Deep-Sea Research Part II-Topical Studies in Oceanography **48**(1-3): 501-518.

- Nakamoto, S. (1994). "Lagrangian drifter paths and length scales in the tropical Pacific warmpool from 1990 to 1991". Nonlinear Processes in Geophysics/European Geophysical Society **1**: 57-63.
- Nakamura, H., H. Ichikawa, A. Nishina, H.J. Lie (2003). "Kuroshio path meander between the continental slope and the Tokara Strait in the East China Sea." Journal of Geophysical Research-Oceans **108**(C11): 3360-3376.
- Niiler, P.P., R.E. Davis, et al. (1987). "Water-following characteristics of a mixed layer drifter." Deep-Sea Research Part a-Oceanographic Research Papers **34**(11): 1867-1881.
- Niiler, P.P., P.M. Poulin, L.R. Haury (1989). "Synoptic three-dimensional circulation in an onshore-flowing filament of the California current". Deep-Sea Research **36**(3): 385-405.
- Niiler, P.P., J. Illeman, J.H. Hu (1991). "Lagrangian drifter observations of surface circulation in the Gerlache and Bransfield Straits". Antarctic Journal U.S. **25**: 134-137.
- Niiler, P.P., J.D. Paduan (1995). "Wind-driven motions in the Northeast Pacific as measured by Lagrangian drifters." Journal of Physical Oceanography **25**(11): 2819-2830.
- Niiler, P.P., A.S. Sybrandy, et al. (1995). "Measurements of the water-following capability of holey-sock and TRISTAR drifters." Deep-Sea Research Part I-Oceanographic Research Papers **42**(11-12): 1951-&.
- Niiler, P. (2001). "The world ocean surface circulation" in "Ocean Circulation and Climate-Observing and Modeling the Global Ocean". Edited by J. Church, G. Siedler, J. Gould. Academic Press, San Diego, 193-204.
- Niiler, P., N. Barth (2000). "The annual mean surface circulation in the Eastern Pacific". Oceanography of the Eastern Pacific **1**:1-7.
- Niiler PP. Maximenko NA. McWilliams JC. (2003). "Dynamically balanced absolute sea level of the global ocean derived from near-surface velocity observations". Geophysical Research Letters **30**(22): 2164-2167.
- Niiler, P.P., N.A. Maximenko, G.G. Panteleev, T. Yamagata, D. Olson (2003). "Near-surface dynamical structure of the Kuroshio Extension." Journal of Geophysical Research-Oceans **108**(C6): 3193-3211.
- Niiler, P., W. Scuba, D. Lee (2004). "Performance of minimet wind drifters in hurricane Fabian". The Sea Journal of Korean Society of Oceanography **9** (3): 130-136.
- Niiler, P., Lee D.-K., Moisan J. (2004). "Observed mechanisms of El Nino SST evolution in the Pacific." Journal of Marine Research **62**, 771-786.
- Nost, O.A., P.E. Isachsen (2003). "The large-scale time-mean ocean circulation in the Nordic Seas and Arctic Ocean estimated from simplified dynamics." Journal of Marine Research **61**(2): 175-210.

- O'Connor, B.M., R.A. Fine, K.A. Maillet, D.B. Olson (2002). "Formation rates of subtropical underwater in the Pacific Ocean." Deep-Sea Research Part I-Oceanographic Research Papers **49**(9): 1571-1590.
- O'Connor, B.M., Fine, R.A., Olson, D.B. (2005). "A global comparison of subtropical underwater formation rates." Deep-Sea Research I **52**(9): 1569-1590.
- ODonnell, J., A. A. Allen, et al. (1997). "An assessment of the errors in Lagrangian velocity estimates obtained by FGGE drifters in the Labrador Current". Journal of Atmospheric and Oceanic Technology **14**(2): 292-307.
- Oh, I.S., V. Zhurbas (2000). "Study of spatial spectra of horizontal turbulence in the ocean using drifter data". Journal of Physical Oceanography **30**(7): 1790-1801.
- Oh, I.S., V. Zhurbas, et al. (2000). "Estimating horizontal diffusivity in the East Sea (Sea of Japan) and the northwest Pacific front satellite-tracked drifter data." Journal of Geophysical Research-Oceans **105**(C3): 6483-6492.
- Ohlmann, J.C., Niiler, P.P., Fox, C.A., Leben, R.R (2001) "Eddy energy and shelf interactions in the Gulf of Mexico." Journal of Geophysical Research **106**(C2): 2605-2620.
- Ohshima, K.I., Wakatsuchi, M., Saitoh, S.I (2005). "Velocity field of the Oyashio region observed with satellite-tracked surface drifters during 199-2000. " Journal of Oceanography **61**(5): 845-855.
- Orvik,K.A.,P. P.Niiler. (2002). "Major pathways of Atlantic water in the northern North Atlantic and Nordic Seas toward Arctic". Geophysical Research Letter **29**(19),1896,doi:10.1029/2002GL015002.
- Otto, L., H.M. van Aken (1996). "Surface circulation in the northeast Atlantic as observed with drifters". Deep-Sea Research Part I-Oceanographic Research Papers **43**(4): 467-499.
- Overland, J.E., P.J. Stabeno, et al. (1996). "Direct evidence for northward flow on the northwestern Bering Sea shelf". Journal of Geophysical Research-Oceans **101**(C4): 8971-8976.
- Ozgokmen, T.M., A. Molcard, T.M. Chin (2003). "Assimilation of drifter observations in primitive equation models of midlatitude ocean circulation." Journal of Geophysical Research-Oceans **108**(C7): 3238-3254.
- Paduan, J.D., P.P. Niiler (1990). "A Lagrangian description of motion in Northern California coastal transition zone filaments". Journal of Geophysical Research **95**(C10): 18,095-18,109.
- Paduan, J.D., P.P. Niiler (1993). "Structure of velocity and temperature in the Northeast Pacific as measured with Lagrangian drifters in Fall 1987". Journal of Physical Oceanography **23**(4): 585-600.
- Paldor, N., Dvorkin, Y., Mariano, A.J., Ozgokmen, T., Ryan, E.H (2004). "A practical, hybrid model for predicting the trajectories of near-surface ocean drifters." Journal of Atmospheric and Oceanic Technology **21**(8): 1246-1258.

- Panteleev, G., Ikeda, M., Grotov, A., Nechaev, D., Yaremchuk, M (2004). "Mass, heat and salt balances in the eastern Barents Sea obtained by inversion of hydrographic section data." Journal of Oceanography **60**(3): 613-623.
- Paris, C.B., R.K. Cowen, K.M.M. Lwiza, D.P. Wang, D.B. Olson (2002). "Multivariate objective analysis of the coastal circulation of Barbados, West Indies: implication for larval transport." Deep-Sea Research Part I-Oceanographic Research Papers **49**(8): 1363-1386.
- Pascual A., Faugere Y., Larnicol G., et al. (2006). "Improved description of the ocean mesoscale variability by combining four satellite altimeters." Geophysical Research Letters **33** (2): Art. No. L02611.
- Pawlak, G., MacCready, P., Edwards, K.A., McCabe, R (2003). "Observations on the evolution of tidal vorticity at a stratified deep water headland." Geophysical Research Letters **30**(24): 2234.
- Pazan, S.E., P.P. Niiler (2001). "Recovery of near-surface velocity from undrogued drifters". Journal of Atmospheric and Oceanic Technology **18**(3): 476-489.
- Pazan, S.E., Niiler, P (2004). "New global drifter data set available." EOS: Transactions American Geophysical Union **85**(2): 17.
- Perovich, D.K., W.B. Tucker, R.A. Krishfield (1989). "Oceanic heat flux in the Fram Strait measured by a drifting buoy". Geophysical Research Letters **16**(9): 995-998.
- Picaut, J.M., C. Loulalen, C. Menkes, T. Delcroix, M.J. McPhaden (1996). "Mechanism of the zonal displacements of the Pacific Warm Pool: Implications for ENSO". Science **274**: 1486-1489.
- Poulain, P.M., P.P. Niiler (1989). "Statistical analysis of the surface circulation in the California current system using satellite-tracked drifters". Journal of Physical Oceanography **19**(10): 1588-1603.
- Poulain, P.M., P.P. Niiler (1990). "The response of drifting buoys to currents and wind – comment." Journal of Geophysical Research **95**(C1): 797-799. Pub. Type: Letter.
- Poulain, P.M. (1990). "Near-inertial and diurnal motions in the trajectories of mixed layer drifters". Journal of Marine Research **48**(4): 793-823.
- Poulain, P.M., D.S. Luther, et al. (1992). "Deriving inertial wave characteristics from surface drifter velocities - frequency variability in the Tropical Pacific." Journal of Geophysical Research-Oceans **97**(C11): 17947-17959.
- Poulain, P.M. (1993). "Estimates of horizontal divergence and vertical velocity in the equatorial Pacific". Journal of Physical Oceanography **23**(4): 601-607.
- Poulain, P.M., A. WarnVarnas, et al. (1996). "Near-surface circulation of the Nordic seas as measured by Lagrangian drifters." Journal of Geophysical Research-Oceans **101**(C8): 18237-18258.

Poulain P.M., Barbanti R., Motyzhev S., et al.(2005). "Statistical description of the Black Sea near-surface circulation using drifters in 1999-2003. "Deep-Sea Research Part I-Oceanographic Research Papers **52** (12): 2250-2274.

Proehl, J.A., Lynch, D.R., Mcgillicuddy, D.J., Ledwell, J.R (2005). "Modeling turbulent dispersion on the North flank of Georges Bank using Lagrangian Particle Methods. "Continental Shelf research **25**(7-8): 875-900.

Qiu, B., D.A. Koh, et al. (1997). "Existence and formation mechanism of the North Hawaiian Ridge Current." Journal of Physical Oceanography **27**(3): 431-444.

Rabinovich, A.B., R.E. Thomson (2001). "Evidence of diurnal shelf waves in satellite-tracked drifter trajectories off the Kuril Islands." Journal of Physical Oceanography **31**(9): 2650-2668.

Rabinovich A.B. Thomson RE. Bograd SJ (2002). "Drifter observations of anticyclonic eddies near Bussol' Strait, the Kuril Islands." Journal of Oceanography **58**(5): 661-671.

Radenac M.H., Dandonneau Y., Blanke B. (2005) "Displacements and transformations of nitrate-rich and nitrate-poor water masses in the tropical Pacific during the 1997 El Nino." Ocean Dynamics **55** (1): 34-46.

Ralph, E.A., K.N. Bi, et al. (1997). "A Lagrangian description of the western equatorial Pacific response to the wind burst of December 1992: heat advection in the warm pool." Journal of Climate **10**(7): 1706-1721.

Ralph, E.A., P.P. Niiler (1999). "Wind driven currents in the tropical Pacific". Journal of Physical Oceanography **29**(9): 2121-2129.

Ramp, S.R., P.F. Jessen, et al. (1991). "The physical structure of cold filaments near Point Arena, California, During June 1987." Journal of Geophysical Research-Oceans **96**(C8): 14859-14883.

Reed, R. K., P. J. Stabeno (1996). "On the climatological mean circulation over the eastern Bering Sea shelf." Continental Shelf Research **16**(10): 1297-1305.

Reverdin, G., C. Frakignoul, E. Destenare, M. McPhaden (1994). "Seasonal variability in the surface currents of the equatorial Pacific". Journal of Geophysical Research **99**(10); 20323-20344.

Reverdin G., F. Hernandez (2001) "Variability of the Azores Current during October-December 1993." Journal of Marine Systems **29**(1-4): 101-123.

Reverdin, G., P.P. Niiler, H. Valdimarsson (2003). "North Atlantic Ocean surface currents." Journal of Geophysical Research-Oceans **108**(C1): 3002-3004.

Reynolds, R.W. (1993). "Impact of Mount Pinatubo aerosols on satellite-derived sea surface temperatures". Journal of Climate **6**(4): 768-774.

Reynolds, A., T. Smith (1994). "Improved global sea surface temperature analyses using optimum interpolation". Journal of Climate **7**(6): 929-948.

- Richardson, P. L., G. E. Hufford, et al. (1994). "North Brazil current retroflection eddies." Journal of Geophysical Research-Oceans **99**(C3): 5081-5093.
- Richardson, P.L (2005). "Carribean Current and eddies as observed by surface drifters. " Deep-Sea Research II **52**(3-4): 429-463. (2005)
- Rio, M.H., F. Hernandez (2003). "High-frequency response of wind-driven currents measured by drifting buoys and altimetry over the world ocean." Journal of Geophysical Research-Oceans **108**(C8): 3283-3301.
- Sanderson, B.G. (1995). "Structure of an eddy measured with drifters". Journal of Geophysical Research **100**: 6761-6776.
- Sanderson, B.G., Booth, D.A (1991) "The fractal dimension of drifter trajectories and estimates of horizontal eddy-diffusivity." Tellus Series A-Dynamic Meteorology & Oceanography **43A**(5): 334-49.
- Saunders, P.M., A.C. Coward, B.A. de Cuevas (1999). "Circulation of the Pacific Ocean seen in a global ocean model: Ocean Circulation and Climate Advanced Modelling project (OCCAM)". Journal of Geophysical Research **104**: 18,281-18,299.
- Schott, F.A., M. Dengler, R. Schoenfeldt (2002). "The shallow overturning circulation of the Indian Ocean." Progress in Oceanography **53**(1): 57-103.
- Shaji, C., Wang, C., Halliwell, G.R., Wallcraft, A (2005). "Simulation of tropical Pacific and Atlantic Oceans using a Hybrid Coordinate Ocean Model. Ocean Modelling **9**(3): 253-282.
- Sheng, J.Y., L.Q. Tang (2003). "A numerical study of circulation in the western Caribbean Sea." Journal of Physical Oceanography **33**(10): 2049-2069.
- Shenoi, S.S. C., P.K. Saji, et al. (1999). "Near-surface circulation and kinetic energy in the tropical Indian Ocean derived from Lagrangian drifters." Journal of Marine Research **57**(6): 885-907.
- Smith, S.R., Jacobs, G.A. (2005). "Seasonal circulation fields in the northern Gulf of Mexico calculated by assimilating current meter, shipboard ADCP, and drifter data simultaneously with the shallow water equations." Continental Shelf Research **25**(2): 157-183.
- Sinclair, E.H., P.J. Stabeno (2002) "Mesopelagic nekton and associated physics of the southeastern Bering Sea." Deep-Sea Research Part II-Topical Studies in Oceanography **49**(26): 6127-6145.
- Stabeno, P.J., R.K. Reed (1991). "Recent Lagrangian measurements along the Alaskan stream". Deep-Sea Research **38**(3): 289-296.
- Strub, P.T., P.M. Kosro, et al. (1991). "The nature of the cold filaments in the California current system." Journal of Geophysical Research-Oceans **96**(C8): 14743-14768.

- Stutzer, S., W. Krauss (1998). "Mean circulation and transports in the South Atlantic Ocean: Combining model and drifter data." Journal of Geophysical Research-Oceans **103**(C13): 30985-31002.
- Swenson, M.S., P.P. Niiler, et al. (1992). "Drifter observations of a cold filament off Point Arena, California, in July 1988." Journal of Geophysical Research-Oceans **97**(C3): 3593-3610.
- Swenson, M.S., P.P. Niiler (1996). "Statistical analysis of the surface circulation of the California Current." Journal of Geophysical Research-Oceans **101**(C10): 22631-22645.
- Swenson, M.S., D.V. Hansen (1999). "Tropical Pacific Ocean mixed layer heat budget: the Pacific Cold Tongue". Journal of Physical Oceanography **29**(1): 69-82.
- Thompson, K.R., Sheng, J.Y., Smith, P.C., Cong, L.Z (2003). "Prediction of surface currents and drifter trajectories on the inner Scotian Shelf." Journal of Geophysical Research-Oceans **108**(C9): 3287.
- Thomson, R.E., J.E. Papadakis (1987). "Upwelling filaments and motion of a satellite-tracked drifter along the West-Coast of North-America." Journal of Geophysical Research-Oceans **92**(C6): 6445-6461.
- Thomson, R.E., P.H. Leblond, et al. (1990). "Analysis of deep-drogued satellite-tracked drifter measurements in the Northeast Pacific." Atmosphere-Ocean **28**(4): 409-443.
- Thomson, R.E., P.H. LeBlond, et al. (1998). "Satellite-tracked drifter measurement of inertial and semidiurnal currents in the northeast Pacific." Journal of Geophysical Research-Oceans **103**(C1): 1039-1052.
- Tijssen, S.B., F.J. Wetsteyn (1984). "Hydrographic observations near a subsurface drifter in the oyster ground, North-Sea." Netherlands Journal of Sea Research **18**(1-2): 1-12.
- Treguier, A.M., Thetten, S., Chassignet, E.P., Penduff, T., Smith, R., Talley, L., Beismann, J.O., Boning, C. (2005). "The North Atlantic subpolar gyre in four high-resolution models." Journal of Physical Oceanography **35**(5): 757-774.
- Tseng, R.S., Y.T. Shen (2002). "Lagrangian observations of surface flow patterns in the vicinity of Taiwan." Deep-Sea Research II **50**: 1107-1115.
- Uchida, H., S. Imawaki, J-H. Hu (1998). "Comparison of Kuroshio surface velocities derived from satellite altimeter and drifting buoy data". Journal of Oceanography **54**: 115-122.
- Uchida, H., S. Imawaki (2003). "Eulerian mean surface velocity field derived by combining drifter and satellite altimeter data." Geophysical Research Letters **30**(5): 1229-1262.
- Valdimarsson, H., S.A. Malmberg (1999). "Near-surface circulation in Icelandic waters derived from satellite tracked drifters". Rit Fiskideildar. J. Mar. Res. Inst-Reykjavik **16**:23-39
- Van Aken, H.M. (2002). "Surface currents in the Bay of Biscay as observed with drifters between 1995 and 1999." Deep-Sea Research Part I-Oceanographic Research Papers **49**(6): 1071-1086.

- Van Aken, H.M., A.K. van Veldhoven, C. Veth, W.P.M. de Ruijter, P.J. van Leeuwen, S.S. Drijfhout, C.P. Whittle, M. Rouault (2003). "Observations of a young Agulhas ring, Astrid, during MARE in March 2000." Deep-Sea Research Part II-Topical Studies in Oceanography **50**(1): 167-195.
- Van Meurs, P. (1998). "Interactions between near-inertial mixed layer currents and the mesoscale: the importance of spatial variabilities in the vorticity field." Journal of Physical Oceanography **28**(7): 1363-1388.
- Van Meurs, P., P.P. Niiler (1997). "Temporal variability of the large-scale geostrophic surface velocity in the northeast Pacific." Journal of Physical Oceanography **27**(10): 2288-2297.
- Van Meurs, P. "The importance of spatial variabilities on the decay of enar-inertial mixed layer currents: theory, observation and modeling". A dissertation submitted in 1995, university of California, San Diego: Scripps Institution of Oceanography.
- Venkatesh, S., B. Sanderson, M. Eltahan (1990). "Optimum deployment of satellite-tracked drifters to support iceberg drift forecasting". Cold Regions Science and Technology **18**(2): 117-131.
- Verbrugge, N., G. Reverdin (2002). "Contribution of horizontal advection to the interannual variability of sea surface temperature in the North Atlantic." Journal of Physical Oceanography **33**: 964-978.
- Ward, P., Shreeve, R., Whitehouse, M., Korb, B., Atkinson, A., Meredith, M., Pond, D., Watkins, J., Goss, C., Cunningham, N (2005). "Phyto- and zooplankton community structure and production around South Georgia (Southern Ocean) during Summer 2001/02. " Deep-Sea Research I **52**(3): 421-441.
- Washburn, L., M.S. Swenson, et al. (1993). "Cross-shelf sediment transport by an anticyclonic eddy off Northern California." Science **261**(5128): 1560-1564.
- Willebrand, J., R.H. Kase, D. Stammer, et al. (1990). "Verification of geosat sea surface topography in the Gulf Stream extension with surface drifting buoys and hydrographic measurements". Journal of Geophysical Research **95**(3): 3007.
- Willett, C.S. (1996). "A study of anticyclonic eddiesin the eastern tropical Pacific ocean with integrated satellite, in situ, and modeling data". A doctoral thesis submitted at University of Colorado.
- Wilkin, J.L., R.A. Morrow (1994). "Eddy kinetic-energy and momentum flux in the southern-ocean - comparison of a global eddy-resolving model with altimeter, drifter, and current-meter data." Journal of Geophysical Research-Oceans **99**(C4): 7903-7916.
- Yanagi, T., T. Shimizu, et al. (1998). "Detailed structure of the Kuroshio frontal eddy along the shelf edge of the East China Sea." Continental Shelf Research **18**(9): 1039-+.
- Yaremchuk, M., Qu, T.D (2004). "Seasonal variability of the large-scale currents near the coast of the Philippines." Journal of Physical Oceanography **34**(4): 844-855.

- Yelland, D., Crawford, W.R (2005). "Currents in Haida Eddies." Deep-Sea Research II **52**(7-8): 875-892.
- Yu, Y., W.J. Emery, R. Leben (1995). "Satellite altimeter derived geostrophic currents in the western tropical Pacific during 1992-1993 and their validation with drifting buoy trajectories". Journal of Geophysical Research **100**(C12): 25,069-25,085.
- Yu, Z.J., N. Maximenko, S.P. Xie, M. Nonaka (2003). "On the termination of the Hawaiian Lee Countercurrent." Geophysical Research Letters **30**(5): 1215-1218.
- Zatsepin, A.G., A.I. Ginzburg, A.G. Kostianoy, V.V. Kremenetskiy, V.G. Krivosheya, S.V. Stanichny, P.M. Poulain (2003). "Observations of Black Sea mesoscale eddies and associated horizontal mixing." Journal of Geophysical Research-Oceans **108**(C8): 3246-3272.
- Zhang, D.X., McPhaden, M.J., Johns, W.E: Observational evidence for flow between the subtropical and tropical Atlantic (2003). "The Atlantic subtropical cells." Journal of Physical Oceanography **33**(8): 1783-1797.
- Zhou, M., J.D. Paduan, et al. (2000). "Surface currents in the Canary Basin from drifter observations." Journal of Geophysical Research-Oceans **105**(C9): 21893-21911.
- Zhou, M., P.P. Niiler, J-H. Hu (2002). "Surface currents in the Bransfield and Gerlache Straits, Antarctica". Deep-Sea Research Part I **49**: 267-280.
- Zhou M., Niller P.P., Zhu Y.W., et al. (2006). "The western boundary current in the Bransfield Strait, Antarctica." Deep-Sea Research Part I-Oceanographic Research Papers **53** (7): 1244-1252.
- Zhurbas, V.M. and I.S. Oh (2001). "Estimates of the velocity spatial spectra of the ocean currents on the basis of drifter data." Oceanology **41**(2): 162-170.
- Zhurbas, V., I.S. Oh (2003). "Lateral diffusivity and Lagrangian scales in the Pacific Ocean as derived from drifter data." Journal of Geophysical Research-Oceans **108**(C5): 3141-3149.
- Zhurbas, V.M., Oh, I.S., Pyzhevich, M.L (2003). "Maps of horizontal diffusivity and Lagrangian scales in the Pacific Ocean obtained from drifter data." Oceanology **43**(5): 622-631.
- Zhurbas, V., Oh, I.S (2004). "Drifter-derived maps of lateral diffusivity in the Pacific and Atlantic Oceans in relation to surface circulation patterns." Journal of Geophysical Research-Oceans **109**(C5): 5015.
- Zhurbas, V.M., Zatsepin, A.G., Grigor'eva, Y.V.. Eremeev, V.N., Kremenetsky, V.V., Motyzhev, S.V., Poyarkov, S.G., Poulain, P.M., Stanichny, S.V., Soloviev, D.M (2004). "Water circulation and characteristics of currents of different scales in the upper layer of the Black Sea from drifter data." Oceanology **44**(1): 30-43.